

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A device for force measurement in dynamic tensile experiments on material samples, comprising a force measuring cell, in which at least one force measuring sensor is integrated and which is executed one piece with a first connecting structure, with the material sample being connectable in a firm, detachable manner via said first connecting structure with said force measuring cell, which is provided with a second connecting structure, which is disposed opposite said first connecting structure and via which said force measuring cell is attachable to a fixed back-rest,

wherein at least two force measuring sensors are disposed on said force measuring cell spaced from said first connecting structure in such a manner that the distance between said at least two force measuring sensors and said first connecting structure, and ~~thus between the former~~ said at least two force measuring sensors and the tensile sample, is smaller than the distance between said at least two force measuring sensors and said second connecting structure,

said force measuring cell is provided with a housing or with two pressure plates, which has, respectively have, a thinner wall thickness in the region of said force measuring sensors than in the other housing region or other regions of said pressure plates, and

said force measuring cell has more a stable type of construction regarding elastic deformability in the region of said second connecting structure than in the region of said first connecting structure and said at least two force measuring sensors.

2. (Currently Amended) The device according to claim 1, **wherein** said first connecting structure is a screw connection, having provided on said force measuring cell a thread contour into which a counter thread provided on the material sample is ~~insert-able~~ insertable in a firm, detachable manner.

3. (Currently Amended) The device according to claim 1, **wherein** said first connecting structure is a flange or bolt connection, and on the material sample a corresponding counter flange is provided, respectively a connecting contour corresponding to said bolt connection.

4. (Currently Amended) The device according to claim 1, **wherein**:
said two pressure plates of said force measuring cell can be pressed against each other by means of firm, detachable pressure means,
the tensile sample can be pressed between said pressure plates with force,
and
said at least one force measuring sensor is disposed on said pressure plates at a distance from said pressure means.

5. (Previously Presented) The device according to claim 1, **wherein** said housing is designed axially symmetrical to a axis of symmetry along which the tensile force acts on said force measuring cell via said material sample.

6. (Previously Presented) The device according to claim 5, **wherein** said at least two force measuring sensors are applied on said housing in a symmetrical arrangement relative to said axis of symmetry.

7. (Previously Presented) The device according to claim 1, **wherein** said force measuring cell contains titanium.

8. (New) The device according to claim 2, wherein:
said two pressure plates of said force measuring cell can be pressed against each other by means of firm, detachable pressure means,
the tensile sample can be pressed between said pressure plates with force,
and
said at least one force measuring sensor is disposed on said pressure plates at a distance from said pressure means.

9. (New) The device according to claim 3, wherein:
said two pressure plates of said force measuring cell can be pressed against each other by means of firm, detachable pressure means,
the tensile sample can be pressed between said pressure plates with force,
and

said at least one force measuring sensor is disposed on said pressure plates at a distance from said pressure means.

10. (New) The device according to claim 2, wherein said housing is designed axially symmetrical to an axis of symmetry along which the tensile force acts on said force measuring cell via said material sample.

11. (New) The device according to claim 3, wherein said housing is designed axially symmetrical to an axis of symmetry along which the tensile force acts on said force measuring cell via said material sample.

12. (New) The device according to claim 4, wherein said housing is designed axially symmetrical to an axis of symmetry along which the tensile force acts on said force measuring cell via said material sample.